-------- Original Message --------
Subject: Re: Plan Disapproval
Date: Mon, 11 Feb 2019 13:04:34 -0500
From: Brad Bidgood-VA Carolina Buildings
To: adriggers@harnett.org

Truss drawings are attached.

The windows are as follows:

#1 - 3' x 1' fixed
#3 - 6' x 1' fixed
#1 60" x 36" fixed
#2 36" x 54" double hung

THE U FACTOR FOR ALL THE FIXED WINDOWS LISTED IS .32

THE U FACTOR FOR THE 36 X 54 DH NO GRID IS .33

THE SOLAR HEAT GAIN COEFFICIENT (SHGC) FOR ALL THE FIXED
WINDOWS YOU LISTED IS .31

THE SOLAR HEAT GAIN COEFFICIENT (SHGC) FOR THE DOUBLE
HUNG NO GRIDS IS .30

Insulation:
Ceiling R-42
Walls R-19

The slab will be insulated

Thanks,

Donna

Donna Stephenson
VA Carolina Buildings
919-480-0973

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: JJO190203
Dalesio

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Truss Builders.

Pages or sheets covered by this seal: E12688400 thru E12688402

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

February 11,2019

Gilbert, Eric

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Dalesio	E12688400
JJO190203	CT1	MOD. QUEEN	8	1		
					Job Reference (optional)	

Truss Builders, Inc.,   Morrisville, NC   8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Feb 11 08:14:44 2019 Page 1
ID:CzN2PJ5KVeXeDtUNchcOi2zmGqu-C3Y5_zKAxHldceK?_OxxHPq7LYlQ4fwS3X7qR3zmGcf

-0-10-8 | 6-3-0 | 12-1-8 | 18-0-0 | 23-10-8 | 29-9-0 | 36-0-0 | 36-10-8
0-10-8 | 6-3-0 | 5-10-8 | 5-10-8 | 5-10-8 | 5-10-8 | 6-3-0 | 0-10-8

Scale = 1:61.0

9-2-4 | 18-0-0 | 26-9-12 | 36-0-0
9-2-4 | 8-9-12 | 8-9-12 | 9-2-4

Plate Offsets (X,Y)--   [2:0-0-0,0-1-4], [6:0-3-0,0-3-0], [10:0-0-0,0-1-4]

LOADING (psf)		SPACING-	4-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.29	12-14	>999	240	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.45	12-14	>957	180		
TCDL	5.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.12	10	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-MR							Weight: 235 lb	FT = 6%
BCDL	5.0											

LUMBER-
TOP CHORD   2x6 SP No.1D *Except*
      4-6,6-8: 2x6 SP No.2
BOT CHORD   2x6 SP No.1D
WEBS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD   2-0-0 oc purlins (2-10-2 max.)
      (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD   Rigid ceiling directly applied or 7-6-1 oc bracing.
WEBS   1 Row at midpt   5-14, 7-14

REACTIONS.   (lb/size)   2=1870/0-3-8, 10=1870/0-3-8
      Max Horz 2=164(LC 12)
      Max Uplift 2=-620(LC 8), 10=-620(LC 9)
      Max Grav 2=2248(LC 2), 10=2248(LC 2)

FORCES.   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-4917/1283, 3-5=-4478/1132, 5-6=-3402/870, 6-7=-3402/870, 7-9=-4478/1132,
      9-10=-4917/1284
BOT CHORD   2-16=-1235/4530, 14-16=-963/3981, 12-14=-834/3981, 10-12=-1107/4530
WEBS   3-16=-480/311, 5-16=-60/580, 5-14=-1130/461, 6-14=-314/1514, 7-14=-1130/462,
      7-12=-61/580, 9-12=-480/311

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=3.0psf; BCDL=3.0psf; h=0ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate
   grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15
   Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs
   non-concurrent with other live loads.
6) Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to
   verify adequacy of top chord dead load.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide
   will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
   2=620, 10=620.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORTH CAROLINA
PROFESSIONAL
SEAL
036322
ENGINEER
ERIC A. GILBERT

February 11,2019

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818 Soundside Road
Edenton, NC 27932

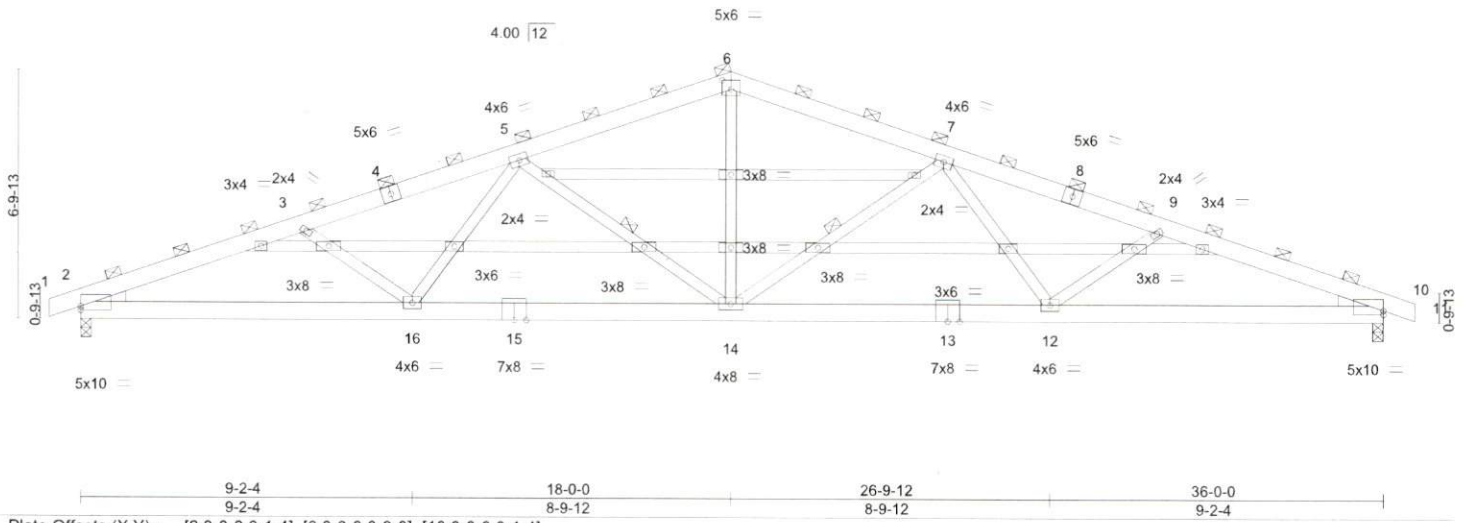| Job	Truss	Truss Type	Qty	Ply	Dalesio	E12688401
JJO190203	GE1	GABLE	3	1	Job Reference (optional)	

Truss Builders, Inc., Morrisville, NC

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Feb 11 08:14:46 2019 Page 1
ID:CzN2PJ5KVeXeDtUNchcOi2zmGqu-9SgrPfLQTv?LsyUO5p_PMqvTqMRuYZPlXrcxWyzmGcd

-0-10-8	6-3-0	12-1-8	18-0-0	23-10-8	29-9-0	36-0-0	36-10-8
0-10-8	6-3-0	5-10-8	5-10-8	5-10-8	5-10-8	6-3-0	0-10-8

Scale = 1:61.0

	9-2-4	18-0-0	26-9-12	36-0-0
	9-2-4	8-9-12	8-9-12	9-2-4

Plate Offsets (X,Y)-- [2:0-0-0,0-1-4], [6:0-3-0,0-3-0], [10:0-0-0,0-1-4]

| LOADING (psf)		SPACING-	4-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.29	12-14	>999	240	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.45	12-14	>957	180		
TCDL	5.0	Rep Stress Incr	NO	WB	0.63	Horz(CT)	0.12	10	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-MR							Weight: 289 lb	FT = 6%
BCDL	5.0											

LUMBER-
TOP CHORD   2x6 SP No.1D *Except*
  4-6,6-8: 2x6 SP No.2
BOT CHORD   2x6 SP No.1D
WEBS   2x4 SP No.3
OTHERS   2x4 SP No.3
WEDGE
Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-
TOP CHORD   2-0-0 oc purlins (2-10-2 max.)
  (Switched from sheeted: Spacing > 2-8-0).
BOT CHORD   Rigid ceiling directly applied or 7-6-1 oc bracing.
WEBS   1 Row at midpt   5-14, 7-14

REACTIONS. (lb/size) 2=1870/0-3-8, 10=1870/0-3-8
  Max Horz 2=164(LC 12)
  Max Uplift 2=-620(LC 8), 10=-620(LC 9)
  Max Grav 2=2248(LC 2), 10=2248(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-4917/1283, 3-5=-4478/1132, 5-6=-3402/870, 6-7=-3402/870, 7-9=-4478/1132,
  9-10=-4917/1284
BOT CHORD   2-16=-1235/4530, 14-16=-963/3981, 12-14=-834/3981, 10-12=-1107/4530
WEBS   3-16=-480/311, 5-16=-60/580, 5-14=-1130/461, 6-14=-314/1514, 7-14=-1130/462,
  7-12=-61/580, 9-12=-480/311

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=3.0psf; BCDL=3.0psf; h=0ft; Cat. II; Exp B; Enclosed;
   MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate
   grip DOL=1.33
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry
   Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15
   Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs
   non-concurrent with other live loads.
7) Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to
   verify adequacy of top chord dead load.
8) Horizontal gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide
    will fit between the bottom chord and any other members.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
    2=620, 10=620.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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036322
ERIC A. GILBERT
ENGINEER

February 11,2019
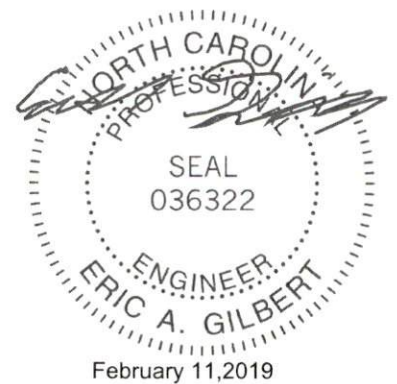
⚠ WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not
a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall
building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing
is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the
fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component
Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Dalesio	E12688402
JJO190203	SC1	SCISSORS	8	1		
					Job Reference (optional)	

Truss Builders, Inc.,   Morrisville, NC

8.220 s Nov 16 2018 MiTek Industries, Inc. Mon Feb 11 08:14:48 2019 Page 1
ID:CzN2PJ5KVeXeDtUNchcOi2zmGqu-5qnbpLNg?WF25GemDE0tRF_qi9700S_1_951aqzmGcb

| -0-10-8 | 4-10-7 | 9-3-0 | 13-7-8 | 18-0-0 | 22-4-8 | 26-9-0 | 31-1-9 | 36-0-0 | 36-10-8 |
| 0-10-8 | 4-10-7 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-10-7 | 0-10-8 |

Scale = 1:61.8

| | 4-10-7 | 9-3-0 | 13-7-8 | 18-0-0 | 22-4-8 | 26-9-0 | 31-1-9 | 36-0-0 |
| | 4-10-7 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-4-8 | 4-10-7 |
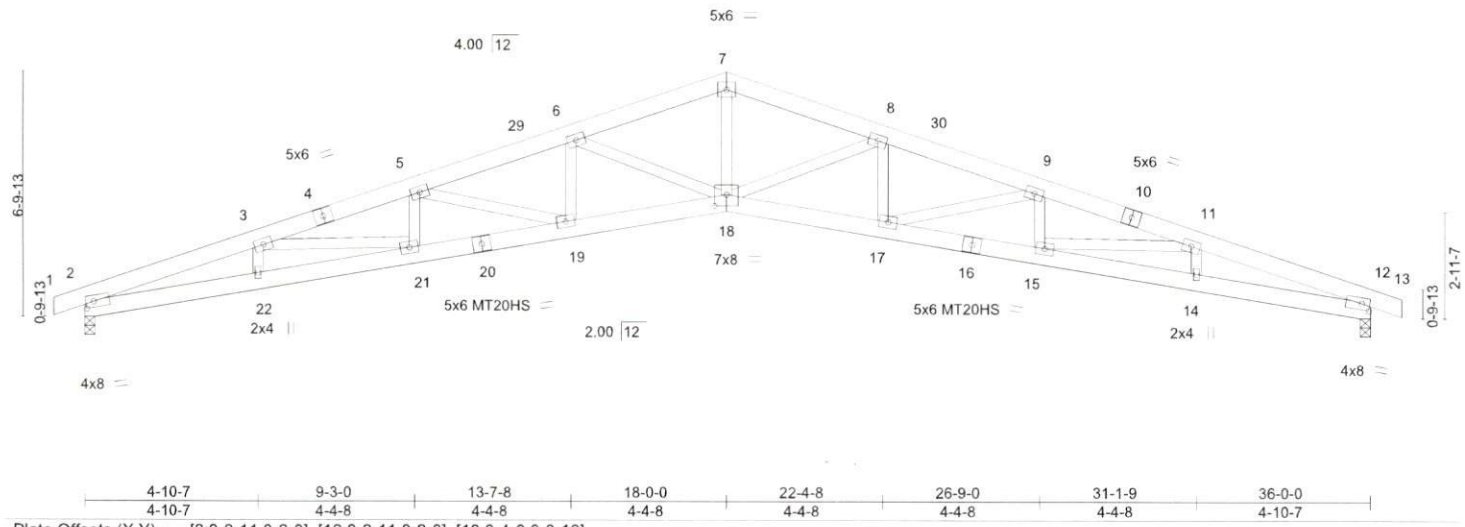
Plate Offsets (X,Y)-- [2:0-2-11,0-2-0], [12:0-2-11,0-2-0], [18:0-4-0,0-3-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.44	18	>981	240	MT20	244/190
Snow (Pf)	15.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.66	18	>653	180	MT20HS	187/143
TCDL	5.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.31	12	n/a	n/a		
BCLL	0.0 *	Code IBC2015/TPI2014		Matrix-MR							Weight: 235 lb	FT = 6%
BCDL	5.0											

LUMBER-
TOP CHORD   2x6 SP No.2
BOT CHORD   2x6 SP No.2 *Except*
2-20,12-16: 2x6 SP No.1D
WEBS   2x4 SP No.3

BRACING-
TOP CHORD   Structural wood sheathing directly applied or 3-3-5 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 7-6-9 oc bracing.

REACTIONS. (lb/size)   2=935/0-3-8, 12=935/0-3-8
Max Horz 2=-82(LC 13)
Max Uplift 2=-310(LC 8), 12=-310(LC 9)
Max Grav 2=1124(LC 2), 12=1124(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-3492/905, 3-5=-4059/1030, 5-6=-3631/887, 6-7=-3070/705, 7-8=-3070/711,
8-9=-3631/830, 9-11=-4059/977, 11-12=-3492/869
BOT CHORD   2-22=-875/3244, 21-22=-888/3293, 19-21=-974/3898, 18-19=-787/3460, 17-18=-667/3460,
15-17=-857/3898, 14-15=-788/3293, 12-14=-776/3244
WEBS   7-18=-349/1655, 3-22=-260/104, 11-14=-260/100, 3-21=-104/616, 5-19=-503/196,
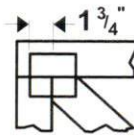6-18=-631/240, 8-18=-631/245, 9-17=-503/200, 11-15=-121/616

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=3.0psf; BCDL=3.0psf; h=15ft; Cat. II; Exp B; Enclosed;
MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.33 plate
grip DOL=1.33
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pf=15.0 psf (flat roof snow: Lumber DOL=1.15
Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.0 psf on overhangs
non-concurrent with other live loads.
6) Dead loads shown include weight of truss. Top chord dead load of 5.0 psf (or less) is not adequate for a shingle roof. Architect to
verify adequacy of top chord dead load.
7) All plates are MT20 plates unless otherwise indicated.
8) All plates are 4x6 MT20 unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 1-0-0 wide
will fit between the bottom chord and any other members.
11) Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
capacity of bearing surface.
12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
2=310, 12=310.

NORTH CAROLINA
PROFESSIONAL SEAL
SEAL
036322
ERIC A. GILBERT
ENGINEER

February 11,2019

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818 Soundside Road
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Symbols

PLATE LOCATION AND ORIENTATION

$1\frac{3}{4}"$

Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.
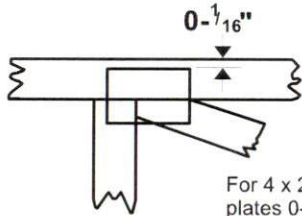
$0-\frac{1}{16}"$

For 4 x 2 orientation, locate plates $0-\frac{1}{16}"$ from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

* Plate location details available in MiTek 20/20 software or upon request.
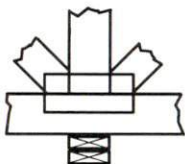
PLATE SIZE

4 x 4

The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION

Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.
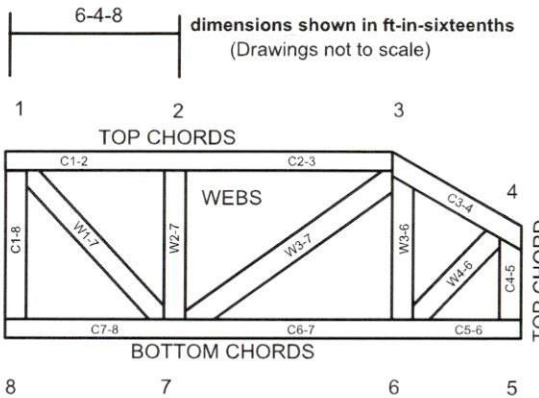
BEARING

Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:
ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths
(Drawings not to scale)

```
         1              2                    3
              TOP CHORDS
         C1-2              C2-3
                                          C3-4      4
   C1-8  WEBS
        W1-7   W2-7    W3-7    W3-6  W4-5
   TOP CHORD                              C4-5   TOP CHORD
         C7-8              C6-7          C5-6
              BOTTOM CHORDS
         8              7                    6      5
```

JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek®

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TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

⚠ General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.

2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or I bracing should be considered.

3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.

4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

5. Cut members to bear tightly against each other.

6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.

7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.

8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.

10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.

11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.

12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.

13. Top chords must be sheathed or purlins provided at spacing indicated on design.

14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.

15. Connections not shown are the responsibility of others.

16. Do not cut or alter truss member or plate without prior approval of an engineer.

17. Install and load vertically unless indicated otherwise.

18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.

19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.

20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.